

LOADSTAR LETTER #54

Bill Gates Attacked By Professional Pie Throwers In Belgium

BRUSSELS, Belgium. As Bill Gates entered a building to meet with Belgian government officials, one person distracted Gates' attention while another



threw a cream tart pie.

It struck Gates right in the face, leaving cream all over his glasses. Before he knew what hit him, two more volleys came at him. Noel Godin, a Belgian, has made a name for himself and a lucrative business out of hurling custard pies in the faces of the rich and famous.

Four to five people were involved and had a stack of pastries ready. Though arrests were made, Microsoft said it would not press charges.

Wheels/GeoFAX Sweepstakes

By Jeff Jones. If you return the winning entry form I will be glad to say, "You have won a free Wheels or GeoFAX Software pack!" Click Here Software has agreed to give away one Wheels and one GeoFAX system to the lucky first and second place winners in our drawing on April 15, 1998. Just send in the re-subscription coupon on the inside back page to be entered. No purchase necessary. Wink. Wink.

SPECIAL INVESTIGATIVE REPORT: Deceptive Titling Used by Spammers

By Jeff Jones. In late 1997 I began noticing a shift in the tone of my daily spam. It was a subtle change, not in the message, but only in the subject line. Since spammers know that most of us delete junk mail without reading or sometimes without even downloading, there's a sudden and decisive move away from the ridiculous but ever-present "*Earn \$50,000 Per Week Guaranteed!*" subject line.

Have you ever hear of the term, *getting your foot in the door*? How better than to impersonate a close friend — or at least insinuate that you're a friend? The following are subject lines that actually lulled me into thinking that a friend, customer, colleague or even long lost friend had contacted me. Each Email was actually an ad for one of five products:

- 1 Get rich doing nothing
 - 2 Information that will get you rich
 - 3 Strange sex for sale
 - 4 Email lists that will get you rich
 - 5 Stranger sex for sale
- Subject: Sorry It Took So Long
 - Subject: In Reply To Our Conversation
 - Subject: Here It Is!
 - Subject: As Promised...
 - Subject: Please Tell Me What To Do!
 - Subject: About My Last Message...
 - Subject: Just A Quick Note
 - Subject: Re: How's It Going?
 - Subject: Sorry It Took So Long. Call Me At Home After You Read This
 - Subject: A Personal Message...
 - Subject: I Just Wanna Talk To You...
 - Subject: Re: Thanks Again...
 - Subject: Information You Requested
 - Subject: Your Web Page
 - Subject: Your Email Sent To Me By Mistake

The "Your Web Page" angle is very common. If a web robot finds an Email address on a web page, it adds that address to a list of possible suckers. Over the past month I've been saving the more creative spam instead of deleting it. What's happening with Email lately is nothing short of evolutionary. Yes, I implied *evolution*, not revolution. In order to survive and make money, spammers must adapt.

What's the next step? Powerful scanners, monitoring the roar of the net, filtering out private Email messages and finding out who is sending Email to whom? Email return addresses are merely cosmetic, and already few spammers use real return addresses. If a spammer discovers the names of the people you respect he can use the fake return address of your best friend or mentor who says, "...by the way, Phil, I tried that \$50,000 per week thing and it worked! Here's their number..."

You don't need futuristic listening posts to get this information. You just need to be an Internet Service Provider (ISP) that is an interchange point. An ISP has access to the waiting Email of all of its customers. It's just sitting on a huge hard drive in a text file. All you have to do is find a programmer willing to write the illegal spider software that cross-references the names.

An interchange point is a large ISP like MCI or AT&T that handles traffic that may not originate or terminate at its customer base. So an interchange might route many millions of messages that originate and terminate completely outside of its customer base.

Not every ISP is equally ethical. Just as AOL, after promising confidentiality, recently gave out the real name of a gay sailor to the Navy, a small ISP operating out of a hole in the ground may one day sell large Email lists cross-referenced and analyzed to see who is talking to whom.

Look at the paper mail you receive. Your name and contacts are already being categorized, bought and sold. I don't think we need new and stupid legislation to thwart the matter though impersonating people (if it comes to that) should be a crime even if the crime is electronic.

With Email, the possibility for deception is high, but I'm actually curious to see what the future of deception holds. Sure I hate spam, but at least it's beginning to get interesting.

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An Interview With Maurice Randall

Interview By Robin Harbron.

ROBIN: Hi Maurice! Can you give us a brief overview of what Wheels is? Where did the idea for the name come from?

MAURICE: Wheels is the newest operating system for our Commodores. It's based on GEOS 2.0 but is much more than that. It contains many features that we've been missing for the past several years. With Wheels you can now control your CMD devices like they should be controlled. Disk access is the strongpoint of Wheels.

The original plan was to call this *GEOS 3.0*, but Geoworks put a stop to that since their own upgraded version of GEOS for their new projects in the handheld computers is known as 3.0. So I needed something different. I couldn't think of anything yet, so I just called it "*Project GEOS*" for the time being. I started seeing it referred to as *Project G*, so I shortened it to *Project G* myself. So for the last several months, this was *Project G* and has become quite well known without even being released.

For a long time I couldn't think of a name. I've always had an automotive

background. I've owned a one-man auto repair shop for the last 18 years and I grew up around cars. It only seemed fitting that I use a name that was based somehow on cars. It had to be something catchy and easily remembered. And it couldn't have GEOS in the name. I personally don't think Geoworks wants to be associated with the Commodore 64 anymore.

One day, it just hit me all of a sudden. I was working on somebody's car and it was not really in the best of shape. I thought to myself, "*this guy needs a better set of wheels.*" That's it! I'll call the new

the plural term, becoming *Wheels*, the singular entity. So "Wheels are..." becomes "Wheels is..." Dogs and cats living together... Mass hysteria... Other than that, it's fine.

What will people require to run Wheels on their system? What optional hardware and software improves the capability of Wheels?

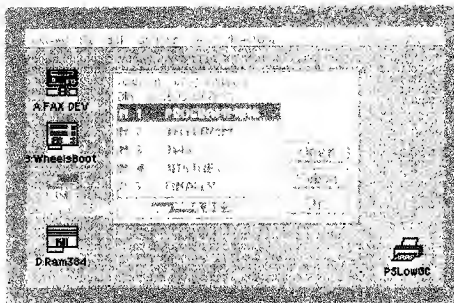
MAURICE: If you're currently using GEOS, the only absolute requirement for Wheels is a RAM expansion unit, REU. Any serious GEOS user should already have some form of RAM expansion though. Wheels is not for those who don't have a RAM expander or don't wish to purchase one.

For Wheels, any of the popular types of RAM expansion can be used. This includes the I7xx series REUs, the geoRAM, the BBGRam, the RAMLink or RAMDrive with a DACC partition or the I7xx REU plugged into the RAMLink. You can also use a SuperCPU with a SuperRAM with any size SIMM. The RAMLink is also fully supported with or without the SuperCPU. Expanded REUs can also be used, or you can get by with the original 1700 REU, which was only 128K.

If you want, you can use a single 1541 drive. Since you must have RAM expansion, you can also set up a RAM disk of various sizes. Wheels supports native RAM disks similar to the native partitions that are used in the CMD devices, and they can be as large as 16 Megs if you have enough RAM.

The real power of Wheels comes when you have all the goodies on your system. This naturally includes the drives that CMD offers. Wheels supports drives A-D like GEOS should have from the beginning.

Configuring for all these devices is almost entirely automatic. It's easy for



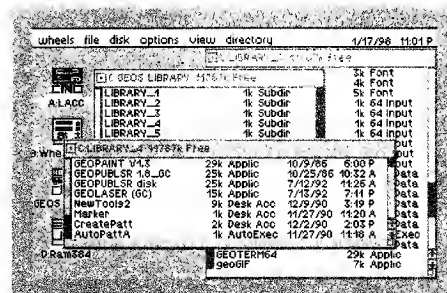
Colors and background patterns may be changed to suit your own tastes. Cruising around on your CMD devices is simple using the operating system's own built-in utility for switching partitions and subdirectories.

operating system "*Wheels.*" Cars are often referred to in this way. When I said the guy needed a better set of wheels, I wasn't referring to the part that holds the tires, but rather the whole package, the whole car. In our case, "*Wheels*" is the whole package, the whole operating system.

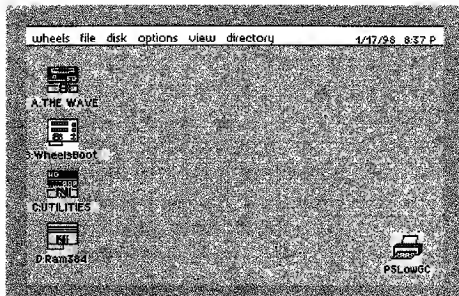
Some think Wheels is a bad idea for a name, and some simply love it. I think it'll catch on rather quickly for those that are unsure. It has its own identity instead of being known as simply an upgrade to GEOS. What does the Wheels name have to do with computers? Absolutely nothing. Many people won't even have a clue as to what it is just by looking at the name. That's been one of the main criticisms about the name. But if you look at the names of half of the software that's available for computers, you won't be able to tell exactly what they're for either.

But people are going to start using it and talking about it. It's going to be mentioned in user group newsletters and other publications as well as on BBSs and online newsgroups. Word spreads fast and it won't be long before everyone concerned knows what Wheels is. You know there're still people that don't know what GEOS is.

ROBIN: According to Jeff (the editor), you begin thinking about wheels,



Directory windows may be resized and moved about the screen as you see fit. In this example, the window in the middle is the root directory of a native partition. The other two are subdirectories that have been opened up into their own windows. With different directories having their own windows, you can work from any part of your system with ease.



This is how the Dashboard looks when you first boot up. If you have a printer configured, the printer driver's icon shows up on the screen. This particular session was booted from the RAMLink and its icon appears highlighted which identifies it as the current drive.

the user to get started with Wheels.

ROBIN: What sort of extras will ship with Wheels? Will an improved geoWrite or geoPaint be included?

MAURICE: Currently Wheels is an upgrade to the operating system and doesn't include the two major Geoworks applications, geoWrite or geoPaint. This is one of the reasons you still need GEOS 2.0, to have these two applications.

Two of the programs supplied with Wheels are perhaps the most important for controlling your system, the *Dashboard* and the *Toolbox*. Dashboard 64 is the new desktop interface and Toolbox 64 replaces the old Configure. In fact it replaces ALL the old Configures. Each of these programs serves a special purpose with Wheels. The Toolbox is in charge of setting up the system during bootup and providing functions for altering the system at any time after bootup. I think “Toolbox” is an appropriate name since it lets the user tinker with the system. The Dashboard, on the other hand, lets the user control the system and move around the system. Its number one function is file management.

The Dashboard is the flagship product in this package. Most people are going to judge Wheels by how well the Dashboard works. It doesn't matter how good or bad the operating system is, to most people it's what's visible that counts. I think I've created a desktop here that will serve everyone's purpose.

ROBIN: Is installation of Wheels going to be difficult?

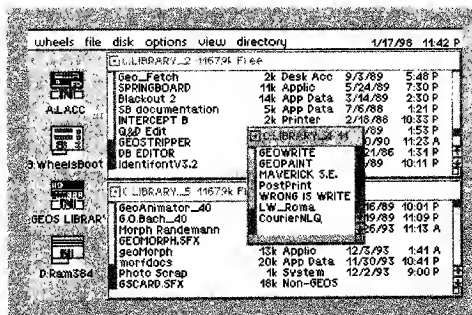
MAURICE: I don't like programs that are difficult to learn or use. For that reason, I try to make my own software easy to use. Installing Wheels will be very easy, although it has a few strict rules to follow during the initial installation. To protect myself from copyright

infringement the user is required to have a GEOS 64 V2.0 boot disk and will have to boot up from that disk to do the initial installation of Wheels. Once installed, the GEOS disk will no longer be needed and can be put away for safekeeping.

The user will only need to boot from the original Wheels system disk one time also. Supplied with Wheels is a utility called “*MakeSysDisk*”. This will create additional boot disks and should be used right away. It can also create bootable partitions on the CMD devices. It’s not the same as geoMakeBoot that CMD sells for making bootable GEOS 2.0 disks. MakeSysDisk also installs the applications that are needed on your boot disk such as the Dashboard and the Toolbox. When it’s finished, you have a boot disk that is completely ready to use.

ROBIN: Are other programmers going to be working on new Wheels-specific applications? What sort of tools will be available to them?

MAURICE: I've received Email

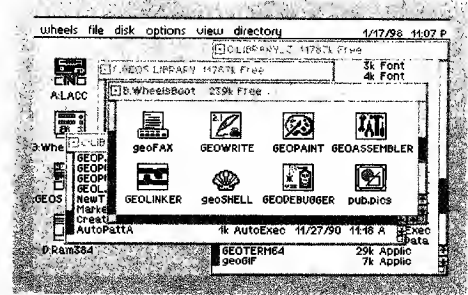


System directories are a handy feature of Wheele and every disk can have one. They are easy to spot due to their different color. In this example, both of these subdirectories share the same system directory which means that only one copy of geoWrite and its fonts are needed on the whole partition.

from a few programmers already who are expressing an interest in getting information about the new features of Wheels. I've already got a development package started and will finish it after Wheels 128 is released. In the meantime, I'll make information available as much as possible.

Just like in GEOS, using geoProgrammer is the best way to develop applications for Wheels. I'll be supplying a complete programmer's manual to use that will cover all the new features of Wheels. There will be sample source code that a programmer can use to work with. Every aspect of Wheels will have example source code to use. Examples are usually the best way to show how a routine works.

I've even created an upgrade to geoProgrammer that only runs in Wheels.

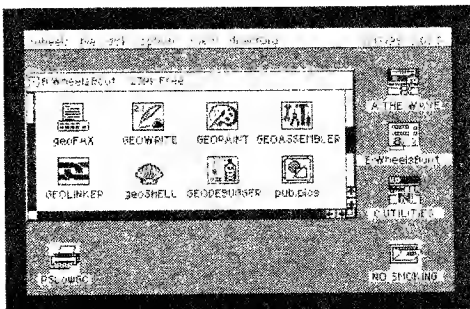


If you prefer, you can use icon mode in your directory windows. You're not stuck with one mode or the other.

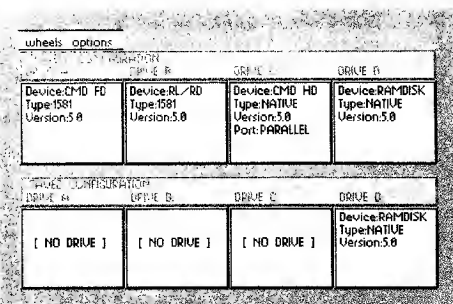
But to get this, the user will have to be a current owner of geoProgrammer and will be required to send in his/her original disk as proof. I'll return the original disk along with the new geoProgrammer and the additional disks involved with the Wheels development package and any documentation that it will include. The cost will be very minimal, just enough to cover my cost of the disks, packaging, and shipping. Basically the contents will be free. So if anybody might be interested in this when it's ready, they should contact CMD and get the current version of geoProgrammer ordered if they don't already have it. I would also suggest finding a copy of the *Official GEOS Programmer's Reference Manual* and the *Hitchhiker's Guide to GEOS*. The Hitchhiker's Guide is available from CMD. Most of this info will still pertain to Wheels and is really necessary to write any program for GEOS.

ROBIN: Many rumors have been circulating about your projects. Can you set us straight on a few issues - What is *The Wave* and what is its future? Is MS-DOS disk interchange a feature built into Wheels? How about multi-tasking or task-switching?

MAURICE: *The Wave* is my telecommunications package that operates in the GEOS environment. I released a demo version for GEOS 128 a few years ago. One of my reasons for creating *Wheels* was to provide better support for *The Wave*. I plan on doing versions of *The Wave* for both *Wheels* 64 and *Wheels* 128. *The Wave* will require *Wheels* and won't run in GEOS. In fact, all my future projects will be for *Wheels* only. You might say there's a method to my madness, but in reality there's really no point in writing software for GEOS anymore. The *Wheels* environment is so much nicer to work in and provides much more functionality for both the user and the programmer.



Do you feel more comfortable with the classic original desktop look? Drive icons and the printer icon can be moved wherever you want them to be. Notice the trash? That's where you stuff your trash. The trash can be turned on or off. And of course, the appearance of every icon used with the Dashboard can be modified to suit the user's own tastes.



The Toolbox's main screen. The upper portion shows your 'current' configuration while the lower shows your 'saved' configuration. For the most part, it's only necessary to save your ramdisk configuration. Notice drive C, the hard drive. When a parallel cable is detected, the Toolbox will install it for you. The parallel cable connected between the RAMLink and HD really speeds up data transfers.

What will The Wave include? In its basic form it will include a terminal program with most of the popular features that a terminal program should have such as a chat mode, uploading and downloading, and a buffer. As a bonus for Wheels users, I've decided I'm going to make The Wave available for free when it's ready.

The Wave will also be the foundation for additional add-ons as time goes on. Maybe a web browser could finally be created for Commodore users. Time will tell.

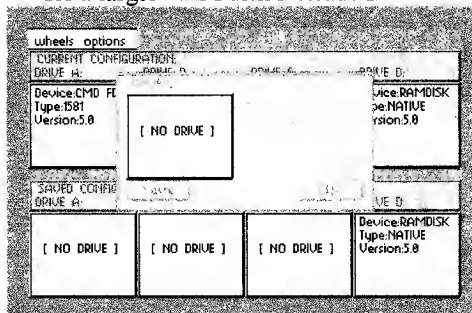
MS-DOS capability won't be in this first release of Wheels. I've got a disk driver that I started working on a couple of years ago but was never happy with it and the implementation is really tough due to the way a Commodore sector is laid out. It's not such a big deal to make a file copier but the way I'd prefer is to actually have a disk driver reading and writing to MS-DOS disks so that we could actually use the disks directly with our applications. Now this doesn't mean that MS-DOS disks are better, but applications like WrongIsWrite and geoGIF just to name a couple of examples, could directly read a file from the MS-DOS disk and save the converted file to a Commodore disk. Also, the Dashboard would be able to be used as the file copier.

At this point in time, though, it's not a reality but might be implemented in a future release if I can get it to work to my satisfaction.

As for task switching, that's something that I don't really like and don't plan to implement it in this system. This is mainly because it can be more trouble than it's worth. It sounds neat, but can really mess up the user's work if

the user isn't careful. If task switching were implemented, it would require a 64K bank of memory in the REU for every task the user would want to use. When you switch a task out and start another one, you are actually swapping all of memory out of the computer including the current copy of the operating system. Now we have a problem. Two or more copies of the operating system are being used and one has no idea what the other one is doing. While one task is swapped out, the user could accidentally make a devastating change to the system that would mess up the files that are being used by the other task. Maybe the other task hasn't properly closed its files yet either.

My thought on task switching is forget it. Why not take each of those 64K banks of RAM and allocate them for a larger RAM disk instead? In



Clicking on a drive entry brings up this dialogue box. Installing drives and ramdisks is easy with the Toolbox.

Wheels, it only takes about 3 or 4 seconds to exit an application back to the Dashboard and double click on another application and be running in that second application. During this time, files are properly maintained and only one copy of the operating system is being used. Only one copy of everything is being used. And there is no confusion for the user. Plus you can still get the same amount of work done in the same amount of time.

The only good way to handle task switching is to create a SuperCPU/ SuperRAM version of Wheels and use multitasking instead. In this case, one copy of the operating system would be in memory and each application the user is working with could be in memory. Nothing moves out of place and files are properly managed and so are the drives. That's down the road a ways yet. In the meantime, I think everyone will be very happy without any form of task

switching.

ROBIN: Will Wheels work with all our existing GEOS applications? What will be some of the big differences when working with Wheels?

MAURICE: Most every GEOS application works just fine with Wheels. Top priority was to keep backward compatibility as much as possible. We've already got many nice applications. It'd be terrible to not be able to use them anymore.

Most of the alternative desktops will even work, although you'll find more functionality in the Dashboard. On the other hand, geoSHELL 2.2, the command line interface (CLI) that I released several years ago, still works great with Wheels. And I've even created several new commands for it and will be including the commands on the Wheels disk. There's still a lot you can do with geoSHELL that no other desktop interface can do, including the Dashboard. The Wheels 64 disk will also include new geoSHELL commands that only work with Wheels. These commands include:

SUBDIR - with a subdirectory name, this will open the Subdir. Without a name, it will pop up a dialogue box to select a Subdir.

PARENTDIR - open the parent directory.

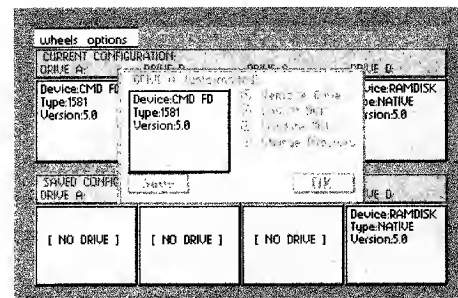
ROOTDIR - open the root directory.

DESKTOP - exit geoSHELL back to the desktop that geoSHELL was loaded from (usually the Dashboard).

CHPART - with a partition number, it will open that partition. Without a partition number, a dialogue box will pop up allowing the user to select a partition.

CHDISK - Mainly for the FD drive when switching disks and the disk is a different format, such as going from native to 81 or 81 to native.

FORMAT - With a diskname, it will format the disk in the current drive. Without a disk name, a dialogue box will



In addition to adding/removing drives and ramdisks, the Toolbox can even perform a few desktop functions such as formatting and validating disks. These operations are actually built into the operating system so that even new applications have the ability to format disks.

(Continued from page 4)

pop up asking for a disk name to be entered.

FCOPY - copy files using many different parameters.

DCOPY - copy whole disks or partitions.

MAKEDIR - create subdirectories within native partitions or in native ramdisks.

VALIDATE - validate any disk or partition that is used in Wheels.

Some of the stuff that won't work with Wheels would be any software that might alter the operating system kernel in any way. I made sure that certain parts in the operating system could accommodate some of this though. For instance, every alternative desktop changes a certain portion of the kernel to install its own filename so that it will be used in place of the default desktop. I made sure that this location was left intact. Other key locations in the kernel that are known to be checked by certain programs were also left intact.

One major application that has trouble with Wheels is geoBasic. This application contains many known bugs anyway. I made an effort to get geoBasic to work with Wheels but it became near impossible. Anybody that wants to program in geoBasic will have to boot up into GEOS 2.0 to use it. On the plus side, standalone software that is written using geoBasic will work in Wheels. It's only geoBasic itself that has problems with Wheels.

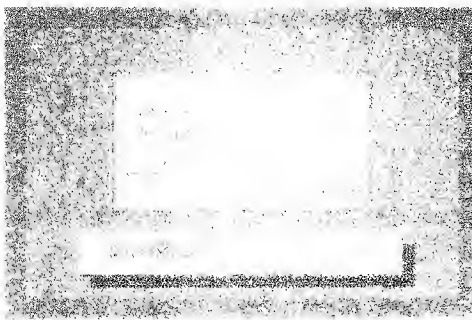
There are some directory organizing programs that may give you trouble. But they will most likely only give trouble when using a native partition. On the other hand, they would have problems with native partitions in GEOS 2.0 also. *GeoWizard* modifies a portion of the kernel and should be avoided. *DBGetFiles* by Jean Major also modifies the kernel and should not be used. This isn't needed

anyway, since its main purpose was to provide the ability to have more than 15 files show up in the file requestor. Wheels allows as many as 255 files in the file requestor.

GeoCanvas is an excellent program but it has a problem with how it determines which 64K bank of RAM it wants to use in the REU. It tends to wipe out the system bank that Wheels uses. This program is good enough that I'll probably figure out a way to patch it soon. For now, it's probably best to use it in GEOS 2.0.

ROBIN: There's been news recently of a GEOS upgrade being programmed in Germany, named *MP3*. Is this project related to yours at all? What do you think of this potential competition?

MAURICE: Yes, the *GEOS Mega-Patch 3.0*. From what I understand, the 64 version is being written by Markus Kanet, and the 128 version by Wolfgang Grimm. As far as the competition goes, that's ok

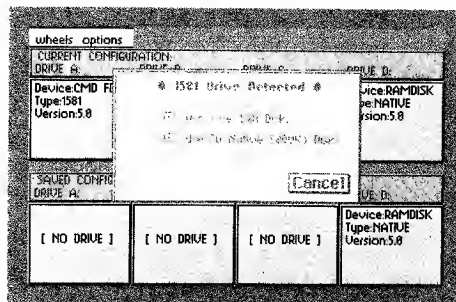


MakeSysDisk is used for creating new boot disks or bootable partitions on your CMD devices. The first screen lets you pick the device you wish to create the system on. Only the devices that are allowed will appear here. Obviously, you can't boot from a 1750!

with me. I've always been disappointed that many of our good GEOS programmers have deserted us and moved on. I'm not about to discourage these guys in Germany. I'll give you a few of my thoughts though. I'm sure people wonder what I think.

My product and theirs are not related at all. In fact, that's where the biggest problem will be, the difference between the two systems. Sure, a GEOS 2.0 program will run in Wheels and will also work with MP3. But, a Wheels program won't run with MP3 and an MP3 program won't run with Wheels. That's not a problem right now, but it will be when new applications start showing up. Some people will end up buying one or the other, or both, just to be able to run certain applications.

Let's look at GEOS 2.0 now. We all know that GEOS 64 came first. Later on, GEOS 128 was created but it was built on



When you install a 1581 drive, you have the option of using FD native disks. In Wheels, the 1581 can use a native partition along with true subdirectories. You can even format an FD disk in the 1581.

the GEOS 64 foundation. All the same routines from GEOS 64 can be found in GEOS 128 along with some additional functionality and enhancements, plus whatever is needed to work with the 128 hardware and screen modes. This is the same way that Wheels 128 is being created. It's based on Wheels 64.

I hope that Markus and Wolfgang are working very closely together on their two projects. Otherwise, we're going to have two very different versions of MP3. That could cause problems for future applications programming. I would suspect they've already thought of this potential problem though.

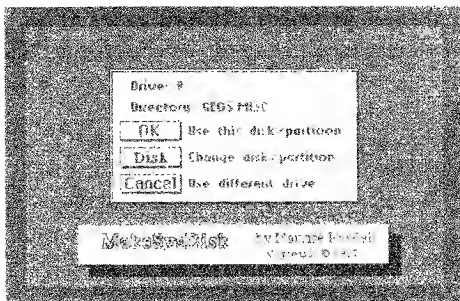
Look at *gateWay 64* and *gateWay 128*. Those were good because they were created with identical source code. The only difference was that the 128 version added stuff to accommodate the 128. If you used one version of gateWay, you knew how to use the other as well.

Doing an actual comparison between Wheels and MP3 is impossible until both products are available. But still, the strong points of either system are going to depend on future support, upgrades, and enhancements. Programmers will also determine the fate of either system with their new applications.

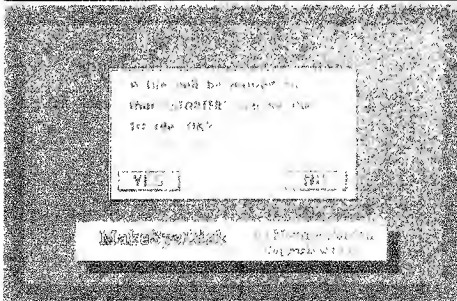
ROBIN: What plans do you have in the future for Wheels? Do you plan on making a SuperCPU-only version of Wheels?

MAURICE: After Wheels 64 begins shipping, I'll continue work on Wheels 128. From early indications it appears there are as many potential 128 users as there are 64 users. And besides, I want a 128 version for myself. Wheels 64 has spoiled me so much that I rarely boot up GEOS 128 anymore. GEOS seems so limited in its hardware handling now.

Wheels currently supports the SuperCPU, although it's fairly transparent to the user. However if a new application

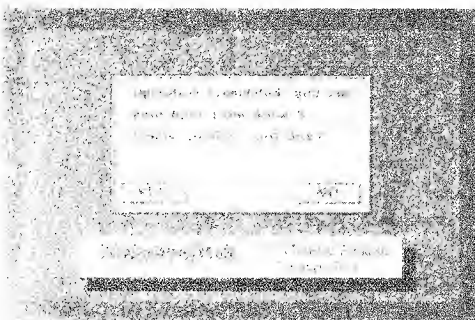


Once you've chosen the device, you can either insert the desired disk if it's a floppy or select the partition you wish to create your system on.



While working, MakeSysDisk will try to position certain key files on your disk. In this case, "STARTER" is the main boot file that gets your Wheels running.

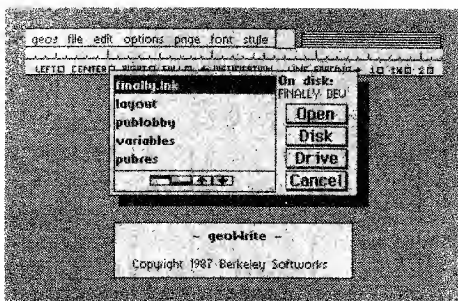
is written and a SuperCPU with SuperRAM is in use, the application can have Wheels allocate any amount of that RAM for its own use. So, even though Wheels isn't only for the SuperCPU, a Wheels application can be written that is



As soon as MakeSysDisk is finished, you'll be able to boot up Wheels from your disk or partition. Any files that were already on the disk are left intact unless they were Wheels system files. In that case MakeSysDisk replaces the system files with new ones. This helps you to restore a possibly corrupted boot disk.

SuperCPU-only and make use of the Wheels RAM allocation routines. Wheels keeps track of any and all RAM that's being used or not being used. New applications can take advantage of this feature. These routines work with any RAM device that is being used by Wheels, but on the SuperCPU there are obvious advantages for the application.

Eventually, I'd like to create a



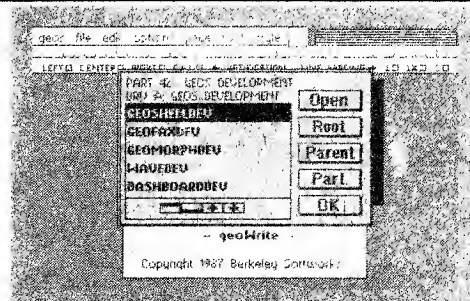
Here's a screen we've all seen before. In this example, we're selecting a geoWrite file from a subdirectory in a 16 meg native partition. These directories can hold a lot of files, and Wheels will display as many as 255 files in this file requester now. See that 'DISK' icon? That's normally for a floppy drive, but check out the next screenshot and see what happens when you click it while using a CMD device.

version of Wheels just for the SuperCPU unless I get too tied up with other projects. Of course it would also depend on how big the market is. Currently Wheels running with a SuperCPU is absolutely amazing and any serious Wheels user should have one. The nice thing about using Wheels with a SuperCPU is there's absolutely no patching or configuration changes to make. It's handled automatically. In fact, the Schnedler TurboMaster is also automatically detected at bootup and supported. Either accelerator is a simple "bolt on" (I like that term better than "plug and play").

ROBIN: Any sort of behind-the-scenes information you can reveal? Perhaps the amount of time you've put into this project, the size of the source code, or your favorite or most innovative feature from a technical standpoint? Anything that would interest another programmer.

MAURICE: I could write several articles based on this question. The Wheels project began in September of '96. At this point in time I had already created a new Configure program for myself that also contained some new disk drivers that I had been working on for a couple of years prior to that. Back in '92 or '93 I had started on a new desktop called Dashboard 128. It was something I never finished though. When September of '96 came along I decided to tackle the whole operating system and to improve it and add all the functionality that we've been without all these years. Much of the work that I'd done in previous years came together in this whole package. But everything is different. The new Dashboard doesn't look at all like the original one. My configure program, the Toolbox isn't anything like the one we've always used with GEOS. Both of these are completely new programs. The disk drivers in the Toolbox are all new, every one of them. There is not a single copy of an old disk driver in there.

As I'm developing all this software, I make regular backups of each individual project. I also make a complete backup of the entire development package. As for size, all the source code, the .REL files and other related support files will no longer fit on a 3.2 Meg FD-4000 disk. That's a tremendous amount of work for one person to keep track of. The end result



Click on the 'DISK' icon and the operating system's own partition/subdirectory dialog box pops up and lets you move to another part of your CMD device. You can even switch between 1581 and native partitions. If you select a native partition, you'll also be able to select any subdirectory within that partition. Any application that uses the 'DISK' icon can access this dialog box now. New applications can also access it in other ways.

however, which is what will be supplied to the user still fits on a 1541 disk.

Hmmm, my most innovative feature? There are so many new features that I'm not sure how to single any one out. Perhaps the most useful feature is the way you can work with native partitions now. The native drivers in Wheels work so nice that there's no point in using any other type anymore. I rarely use the 1581 partitions now. One thing I'm rather proud of is the native driver I wrote for the 1581. This driver actually lets you use an FD native disk in your 1581. You can even format the disk in the 1581. And you can use subdirectories just like you would in the FD drive.

Some other new features are formatting, validating, disk swapping, file copying, disk copying, and input and printer driver installing are all built into the operating system. What this means is each of these operations are available for programmers to use. This also helps keep the size of the Dashboard down so it can contain other useful features that may otherwise be impossible.

Another important feature is applications have 30K of free RAM in the REU to use. Since Wheels requires RAM expansion, this 30K is always there for new applications that are written specifically for Wheels. If the application needs more RAM, it can call a kernel routine to request it. The programmer doesn't have to know anything about the type of RAM in use. It's all handled by the operating system.

New applications can take advantage of Wheels partition handling. An application can be started in a partition and be able to use kernel routines for switching partitions at any

time. It can also keep track of the partition or subdirectory it was loaded from in case it needs to access that directory to load in another portion of itself. Applications were rarely written to deal with partitions before because the operating system had no support for it. There are several partition-related routines in Wheels now that are accessible to programmers.

Like any good operating system, Wheels is a good overall package, both for a user and a programmer and I'm quite proud of how it has turned out.

ROBIN: When is Wheels expected to ship? Can you give us pricing and ordering information?

MAURICE: I expect to have Wheels 64 ready to ship by the end of February. In fact, in the middle of January I started accepting orders for Wheels. Wheels 128 will probably be ready about 3 months after the 64 version starts shipping.

Right now the documentation is written and I'm doing the final layout, adding pictures wherever needed and building the index. As for the software, mostly just a lot of final detail work is being done right now to the two major applications, Dashboard and Toolbox. Pretty soon I'll be working on setting up and laying out the actual master disk.

The price for Wheels 64 is \$36 plus \$4 for shipping and handling to North American addresses and \$6 overseas. I have a special discount for Commodore user groups also. If a user group orders 6 or more sent to one address, the cost is \$32 each with no shipping charge. This will save the members \$8 each. I'm not set up for credit cards yet, but a check or money order can be sent to:

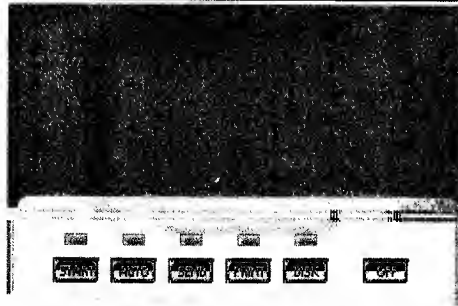
Maurice Randall
Click Here Software Co.
P.O. Box 606
Charlotte MI 48813



GeoFAX

By John Elliott. I recently faxed Jeff Jones a geoWrite letter that contained a geoPaint scrap of a scan of a local artist's portrait. Jeff within minutes faxed the letter back to me and added the first page of a LOADSTAR Newsletter that I had not seen. Jeff used LOADSTAR's fax machine, (318) 221-8870.

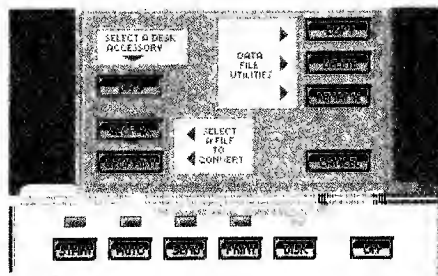
GeoFAX 2.0 - I sent and received the faxes with my C-64, a modem, and a



This first image shows the geoFAX screen when it's just sitting there doing nothing. At this point, you can click on one of the buttons to activate a pop up dialogue box for selecting various functions.

copy of Maurice Randall's GeoFAX 2.0 software. I scanned the image by linking my fax machine to my modem. When I fed the portrait into my fax machine, GeoFAX captured it on my C-64 as a fax that could be viewed as a geoPaint image. I copied the image as a scrap into geoWrite. I wrote the letter in geoWrite, converted it to a geoPaint document with an application Maurice provided, and faxed it to Jeff. The faxing did not involve my standalone fax machine. GeoFAX, a fax modem and a C-64 together can send and receive faxes. The advantage of adding my fax machine to the combination is that I can use it to scan images to my C-64.

"You can't do that on a Commodore" - Several months ago I mentioned to the computer guru at our college that I was using the Internet at 28.8 BPS with my C-64 and also using it

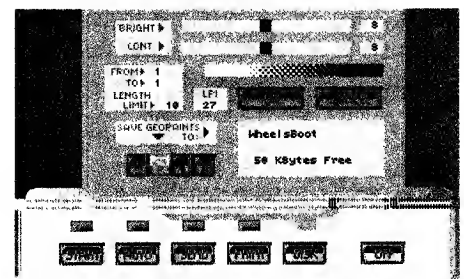


This next image shows the selection box that pops up when you click on the DISK button. In this action, you have various utility functions you can perform. You can copy data files to another disk, such as the faxes you just received or the faxes that you just scanned and converted to geoPaint images. You can also rename and delete files here. Having these functions available saves you from having to exit back to the desktop to do these jobs. You convert images back and forth between geoPaint and geoFAX.

to print my letters and articles on a color ink jet printer. After a few moments of silence, he said "But you can't send faxes." I then told him about GeoFAX.

Compatibility - GeoFAX won't work with any Commodore modem or a modem that plugs directly into your user

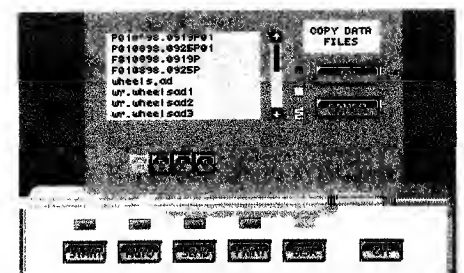
port. It will work on a C-64 or 128 if a SwiftLink or Turbo232 RS232 interface cartridge connects it to a 14.4 BPS or faster modem. There must be at least 16k of RAM in the modem. A Class 1 modem will not work. Class 2 or 2.0 compatible should work. Since I sometimes dropped my sending and receiving speeds to 9.6k or 7.2k BPS, it might be worth trying slower modems, so long as they have 16k RAM and support Class 2. The only RS232 interfaces that Maurice is sure of are SwiftLink and Turbo232. My modem is a 28.8 BPS Newcom model that I purchased from PPI. The Boca modems



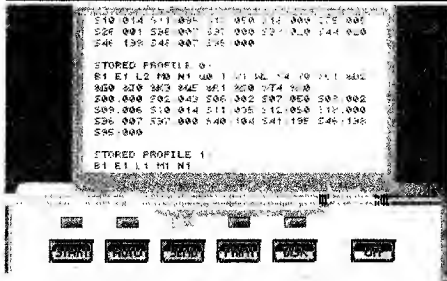
This is where you can make adjustments when converting a geoFAX image to a geoPaint. You can adjust the brightness and contrast as well as the lpi halftone setting.

sold by CMD also work. If your local computer store will allow you to return a modem that does not work with this program, you should be able to do your own tests. If the documentation does not state whether there is a least 16k of RAM, there are terminal commands that tell you the modem's parameters.

Not all modems and fax machines will work together to enable scanning. It must be possible to link the modem and the fax machine by telephone. For some machines a direct connect is physically impossible. Directions are provided on disk for the construction of a connection box that will generate a false telephone call signal. This will then enable communication between fax machine



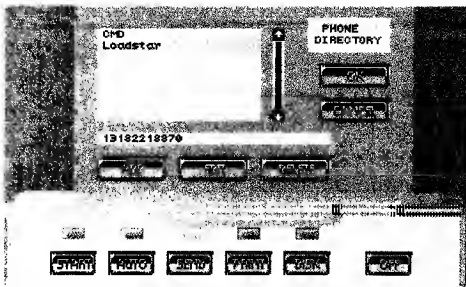
Every function that involves selecting a file includes this nice little file requester complete with a scrollbar. In this example, we are about to select one or more files for copying to another disk.



geoFAX even has a simple terminal built-in. You can't upload or download with it, but you can make configuration changes to your modem. You can even use the ATDT command to dial out to a BBS if you want.

and modem. Alternately it is suggested that a y-connection be made between the "telephone out" of modem and fax machine so that they share the single line that attaches to the wall. A signal from another phone on the same line in the house should start the scanning procedure. My Brother 600 fax machine will satisfactorily scan all images.

GeoFax will work with a C-64 and 1541 or 1571 drive. That set up will allow sending at a maximum of 7.2k BPS and receiving at a maximum of 2.4k for the 1541 and 4.8k for the 1571. Sending and receiving speeds increase



This is the built-in phone directory where you can store the phone numbers of the places where you send faxes more frequently. This can hold up to 90 phone entries.

through the list of 1581, FD, HD, BBG/geoRAM, RAMLink to the 17XX REU which can receive at 7.2/9.6k and send at 9.6k BPS.

I use a 2 meg BBGram device with GeoFAX. I use a prototype adapter with my SwiftLink RS232 interface that shifts the modem memory address so that it will be compatible with the BBG. Without this adapter, which is not commercially available, BBG will not work with GeoFAX.

The CMD Gateway GEOS desktop will not work in its original form with GeoFAX. A patch however is shipped on the disk that makes the two programs compatible. I use TopDesk with GeoFAX.

The Epson Connection - I tested the

receiving capabilities of GeoFAX by dialing the 800 number of Epson Printer's Fax back system. I was able to have them send me from 1 to 15 page documents via fax. Epson uses a high quality fax system for which I was able to set my modem to receive at 9600 baud. Most other faxes did not transfer successfully unless I dropped to 7.2k BPS. As a further test I exchanged faxes with Jeff, a local computer store, and intercepted faxes originally addressed to my fax machine.

Sending - Test faxes sent back to me seem unchanged except for perhaps a few missing dots in a geoPaint image. If my GEOS document has several pages, all are sent successfully and numbered automatically.

Receiving - I have received up to 5 pages of text interspersed with detailed line drawings of Epson printer internals. Everything is legible. Although image quality partly depends on the kind of printer used, the quality of the text pictures was as good as that given by my Brother 600 fax machine.

The Screen Interface - GeoFAX is controlled by clicking on the buttons of a simulated fax machine on the screen. The *Auto* button is really a *Receive* button. Once clicked, you may choose whether to start the reception manually on hearing the incoming signal, or leave it to the program. You can also select modem speed.

The *Send* button allows control of modem speed. You may also choose to send a file as a geoPaint image or as a GeoFAX file. If geoPaint is chosen, the program will automatically convert the file to GeoFAX format while it is being sent. An almost legible copy of the document will scroll out of the top of the simulated fax machine while the geoPaint file is being sent.

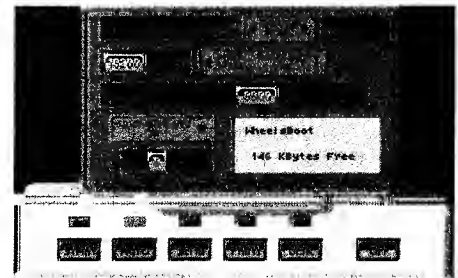
Both of these buttons are set up menus. The *Start* button must be selected to begin sending or receiving.

The *Disk* button gives access to most drive commands. Four different drives can be examined. This is where conversions can take place between geoPaint and GeoFAX formats. A geoPaint document will slow down the sending process, since it must be converted on the fly by the program. GeoFax documents are immediately transmitted. GeoFax files will print in higher definition than geoPaint. If you wish to work with these files though in

the GEOS environment, you must convert them to geoPaint images.

The *Print* button uses menus to determine whether a GeoFAX or geoPaint file is being printed, and to select from a range of low, medium and high definition printer drivers for either format, and for several printers. There is a low and high definition driver for my Star 1000, and low, medium and high definition drivers for 24 pin printers. HP bubble jets have special drivers as do laser and postscript printers.

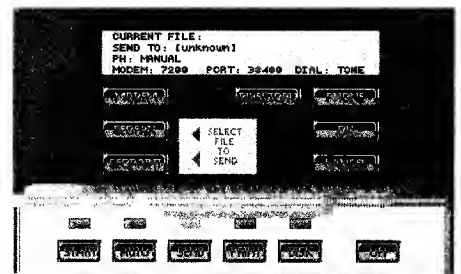
There are two drivers that are not for real printers. When one is installed, "*Print*" converts a geoWrite document to



This is the screen where you configure the fax receive mode. You can use manual receive or auto answer. geoFAX supports the slower 2400 baud setting for a special reason. When scanning a highly detailed color photo, the slower the better in order to reduce the chance of any errors appearing in the received image.

geoPaint format. With the other, it is possible to print a GeoFAX file to screen. An example of Maurice's diligence is that menu selections include serial (normal), and parallel (geoCable) ports.

Fax Machine as Printer - Without actually dialing I have been only partly successful in doing the reverse of scanning. I can send a geoPaint or GeoFAX document from my C-64 to my fax machine. The process is simply the reverse of scanning. For some reason, though, my modem clicks off after the fax machine prints five or six lines. I expect that most people will have more luck than I did.



This is the section used for sending faxes. Here you can select a geoPaint or geoFAX image to send, you can go to the phone directory, or you can configure geoFAX for its sending parameters. You also access the built-in terminal from here.

Some GeoFAX Advantages - I have owned a Brother fax machine for many years before I obtained GeoFAX. For scanning purposes they make a good partnership. There are advantages with GeoFAX over a fax machine.

My Brother has run out of paper while receiving a several page transmission. With GeoFAX and my C-64, all pages of the message are stored on disk for later printing or viewing. Since my received fax is saved to disk, I can forward it to other fax machines with no reduction in definition or other appearance change. My Brother uses thermal fax paper, which is not a pure white, and tends to curl. My GeoFAX documents print to plain paper, or can be viewed on screen without printing.

A more expensive fax machine would have sufficient memory to store incoming messages and would use plain paper. Not all plain paper fax machines however, have the resolution possible with a printer.

Desktop space is at a premium for most computer users. My fax machine uses a large portion of my tabletop. My modem is about the size of my hand, and since it stands on edge, uses at most 12 square inches of table space.

My Brother fax machine is connected to an external answering machine. It can determine whether the incoming message is a fax, or telephone message, and assign tasks appropriately. I tried leaving my fax machine off, my answering machine on, and my GeoFAX on automatic receive. An incoming fax waited until my answering machine had completed its welcome message, and then went to my modem and GeoFAX successfully. When someone phoned to talk when this set up was installed, however, they were greeted with the modem howl.

To receive a fax automatically (unattended), the C-64 must be left on. I know some Commodore users who leave their computer on for five days a week, usually to maintain REU memory. When not in use, the monitor, and whichever drives are not targeted might be shut off, although GEOS can get confused about drives turned off and on during a work session. My Brother 600 is always on, and can be sent for automatic or manual reception.

GeoFAX Uses - GeoFAX can be used to send geoWrite and geoPaint-composed documents. It can receive

faxes as high-resolution GeoFAX or lower definition geoPaint files. Print out quality is controllable by selection of printers and printer drivers. A fax does not have to ever reach paper if instead it is printed to screen, or converted to a geoPaint image.

Hand written documents can be scanned into the C-64 and saved as GeoFAX or geoPaint files for future reference.

Illustrations can be scanned into geoPaint and used as part of other GEOS documents, or altered from within geoPaint.

With the right combination of fax machine and GeoFAX, it should be possible to use the stand alone fax machine as a printer for GeoFAX documents.

Though faxes usually deal with text, faxing is not the transmission of words, but of images scanned on the fly. GeoFAX does not read words. It reads and sends pictures of documents. Once a geoWrite document is converted to geoPaint, the words cannot be edited except as a graphic. A document received by GeoFAX cannot be edited except as a graphic.

Upgrades - Users of the original GeoFAX will appreciate multi-paged documents are now stored as one file, rather than as separate images. For fax use and scanning, GeoFAX makes the purchase of an external modem and RS232 interface worth while. GeoFAX is available from:

Maurice Randall
C/O Click Here Software Co.
P.O. Box 606
Charlotte MI 48813

GeoFAX V2.0 - fax software for GEOS 64 and 128. Includes documentation on disk. Price \$39.95

Super Snapshot V5.2.2 Revisited

By Jeff Jones. Super Snapshot is back on the streets, sold by Joe Palumbo of JP Products By Mail. Right now the packaging still says LMS Technologies, but we all hope that JP sells out all of his current stock and begins to sell cartridges with his own logo.

The US cost is about \$55 plus shipping and the user group price is \$50 plus shipping. In my earlier mention of the product, I gave the Canadian

exchange rate, which may have seemed a bit high.

For those who don't know, Super Snapshot is a cartridge best known for its ability to capture memory and save it to disk. This makes it probably one of the most powerful, yet easy to use backup tools available. This button is not a reset button, but a gateway to many super features. Super Snapshot's freeze button can imitate a reset button if you press C= while pressing it, but since this is a software function and not a hardware thing, this won't work after any fatal crash where your CPU is no longer clocking.

I'm extremely impressed with the cartridge as well as some of the utilities supplied with it. Here is only a partial list of its features:

- It's The SuperCPU's Connection To The Past
- Game save when there's no option
- Faster loading (one big file)
- The ability to customize pre-written software
- The ability to save and resume most any application, be it a spreadsheet, database, paint program, game, or demo
- Memory Capturing Ability
- Fast Loading Ability
- Fast Save Capability
- Wedge
- Fast File Copier
- Fast Disk Copier
- Pre-Programmed F-Keys
- Machine Language Monitors
- Sprite Monitor
- Picture Dump To Disk/Printer, Including Sprites
- Fast Formatter
- Sprite Killer
- BASIC Aid Commands
- 25x Faster Loading Of Turbo Files
- Freeze Button (To Pause Software) for whatever reason
- Character set monitor
- Sound sample monitor
- A built in terminal program that's easy to use, and works up to 2400 baud. It also works in 80-columns if you have an RGB monitor and a C-128. Plus it supports ANSI color. This feature of Snapshot is worthy of its own separate review.
- Nibbler
- Sector Editor
- Parameter Copier
- Sprite Editor
- Sound Sample Player
- Boot Sector Maker
- Fast 1581 Copier

Is the cartridge compatible with The SuperCPU? Directly, absolutely not. You can not operate your C-64 with the Super Snapshot cartridge as well as the SuperCPU. However you can indeed run programs that you have captured with Super Snapshot in the SuperCPU.

This makes Snapshot a gateway for many of your old copy-protected favorite games and utilities that otherwise won't boot with the SuperCPU. More on this after I explain what capturing a program is.

What Capturing A Program Is –

This is basically the process of freezing a program by pressing the Snapshot button, capturing all of memory, saving it to disk in a file, and being able to run that file to resume the program. LOADSTAR has published many programs captured with Snapshot, even recently.

The main reason LOADSTAR snapshots a program is because it might come from Europe with strange and fancy load routines that will only work on a 1541 disk. Well we publish a 1581 disk also. We can't have that. Usually these fancy fastloads also don't work with the SuperCPU enabled or if you have certain cartridges plugged in. We simply allow the program to boot from our 1541 with all the fancy music and graphics to slow the process, and then when everything is loaded, we press the Snapshot button and save the program to disk. Now *anyone* can run it — and faster.

“Can you Capture Programs Without a Care?” Yes — and no. Basically capturing a program is like using a point and shoot camera. Just press the snapshot button, name the file and save the program. You can't capture some programs like Geos, which have re-programmed the drive or are in constant contact with the drive or printer. You might have better luck with fast loading programs if you turn your re-programmed drive off and on again before saving the snapshot file.

There are some things to avoid. When creating a Snapshot file, never save to your RAMLink. It hangs even with Turbo save off. After the fact, you can load and save Snapshot files from your RAMLink of course. If you're saving to a drive that doesn't support Snapshot's turbo save, press T at the snapshot menu to toggle the turbo.

Sometimes *when* you press the snapshot button determines the size of the snapshot file. The reason why size is affected is because when BASIC manipulates strings, it corrupts vast amounts of memory. Of course this is harmless because this is BASIC's own work area. But Super Snapshot doesn't determine which chunks of memory can

be ignored. It does allow you to fill all of memory with \$BB before loading the program to be snapshot. I don't know why they chose \$BB. The consecutive \$BBs left in memory by the time you press the Snapshot button pack down to next to nothing.

While you can indeed play a game and then capture it into a 199-block file, it's probably better to fill memory and then capture the program as soon as it's fully booted. This way you end up with a significantly smaller file.

Sometimes files may be so large that Snapshot can't save it as one file. If Snapshot asks you if you want to break it into two files, you should say yes unless you have a program packer than can handle the resulting file. Your C-64 can't load a file larger than 198 blocks without a special loader, which is what Snapshot creates when it breaks your large snapshots into two files. Snapshot does tell you how large the file will be. It is always off by one block, over-estimating the file size. There is some light compression involved so it's actually amazing that it estimates so consistently.

Snapshot Files - You just load the snapshot file and run it. It decompresses and copies portions of itself to the appropriate memory locations. There is a pause while the snapshot is dissolving itself. Some screens may appear garbled at first but that's only because all the correct screen data may not be copied in place yet.

The first thing I did was back up all my favorite software. Many programs that will not run on my RAMLink and the few that won't boot with JiffyDOS are captured. The reasons for this are usually dreaded copy protection. One reason copy protection has all but vanished is because so many people refuse to use software that won't run on their hard drives. Consider Maverick, which I dropped immediately when it wouldn't work with my expanding CMD system.

My Abacus compiler disk was getting downright ragged. Besides, it was copy protected, hated my fast loads, and took forever to load. Super Snapshot saved the day. I finally have a backup of my well-used compiler and a few other uncopyable utilities. My Blitz compiler sorta kinda doesn't like my SuperCPU. It won't initialize without going into an endless error loop. I simply captured it *after* it had already initialized and it now

runs fine and *fast* on my SuperCPU.

Benefits of the snapshot file –

Instead of a program that seeks and seeks and seeks 5, 10, maybe 15 files on your 1541, you have one big file. What's more, you can compress your Snapshot file to perhaps less than half its original size with various commercial and public domain program compressors. A compressed file may not raise your flag, but consider this: A 60-block file loads a lot faster than a 170-block file. With a SuperCPU, unpack time is usually not noticeable.

The snapshot process is for more than just backing up protected software. Since it compresses all of memory into *one* file, you can boot up programs lightning-fast, especially if you use the included TURBO 25 which allows a 1541 compatible drive to LOAD 25 times faster. Turbo 25 is a file converter that will convert a file from a normal DOS file to a “Turbo” file. These files LOAD at incredible speed for a 1541/71, usually a couple of seconds after a little 1541 seek time. A 170-block file might load in *click... click... click...* no time! It's about two tracks per second. Considering that a track holds about 20 blocks, that's a lot faster than the normal two sectors per second.

Snapshot files are generally around 100 blocks (though I've seen some as low as 30 blocks) but with the speed of turbo 25, any length is negligible. I must mention though that I rarely use Turbo25 since I have a RAMLink and a hard drive, which are even faster. I hardly ever use a 1541/71 — *ever*.

Seek and Ye Shall Grind -

Remember that a 1541 disk drive takes time to find a file. A 1581 drive keeps your entire directory in its RAM so it seems to find even the 296th file quickly. With a 1541, every load starts at the top of the directory and reads sequentially until it finds a match. The 144th file takes a heckuva pause to seek. So if your program accesses five data files deep in the directory, it might take five seconds each to find the file, adding twenty-five seconds of seek time to the load time. The files can be mere 1-block files. Size doesn't matter. We're just talking about *finding* the files in the directory.

Programs that load in fonts, sprites, and especially programs that read in sequential files one byte at a time, can be reduced to one file that boots up in a flash. Programs like The Print Shop are

broken up into many, many files, probably most likely as early technology protection.

Snapshotting Development

Sessions — Here's a neat trick: Since I don't have to be in the program mode to capture a file, I snapshot a session I'm working on with a message to myself on the screen. The next day when I load in the snapshot file I can pick up where I left off, wedges still in place, utilities like Super Aide intact, my message and all!

The cartridge offers a fast formatter that I rarely use because I have a JiffyDOS system, which is already fast formatting. It will format a disk in about ten seconds instead of 80. It's interesting to note that when you use the Snapshot fast format in conjunction with JiffyDOS, you get an even faster format than with either product alone. This is more a testament to JiffyDOS' transparent enhancement capability than Super Snapshot.

Snapshot also allows the storing of screens in many hires and multicolor formats. You can even capture a text screen as a hires screen and save it to disk. You can also load several pic formats into Super Snapshot and view/convert them.

An interesting feature for 128 users is that Snapshot can push your 64 into the fast mode, causing a faster printer dump. The screen will blank during the process though my system seems to crash a third of the time when I try it.

File Copier — Well, if you want to copy files, just type FCOPY and *poof!* You have a file copier on your screen. The full-featured copier offers partition support for the 1581, a feature which I loathe of the 1581. It was also coded before there were CMD devices and will not work with them. It does support 1541/71/81.

Super Snapshot's file copier has some bugs, at least at LOADSTAR under industrial use. When filling a blank disk with a side of LOADSTAR, it might choke and knock the head or even create errors when adding files to an already crowded directory. For a crowded 1581 directory, it doesn't choke; it just doesn't complete the copy. I talked with the creator of the cartridge and he couldn't reproduce the problem. To be fair, no one else has even mentioned this bug, but Fender and I had to stop using the file copier because the bug was too

repeatable for us.

Version 4 had this bug, but version 5 adds to it. Sometimes when you're copying a hundred or so files to an empty disk, the copier goes haywire toward the end, reading and writing weird filenames in rapid succession.

Super Snapshot can copy files of any length since it's multi-pass. If you have only one drive, the file copier makes use of the video RAM if you have a C-128. It also uses any conjoined REU as extra memory, but only if your multi-cartridge setup is stable. It doesn't work for me, but others love it.

Disk Copying — Type DCOPY and *bwamf!* You have a built in disk copier that will make whole-disk copies of 1581 disks, not just the 1541. There is also a full-fledged *nibbler* supplied with Super Snapshot on the system disk. If the disk copier can't make a backup for you, the nibbler probably will. Funny thing though: the disk copier for Snapshot V5.2 doesn't seem quite as fast as the copier supplied with V4. It also annoyingly pauses between prompts that don't disappear anyway. Don't even think of trying this copier on your CMD device.

Code Inspector is an ML monitor that is unlike any monitor I've ever seen. Imagine freezing a program, entering the monitor, then perusing/changing the memory *exactly* as it was when you interrupted. This means screen memory, color memory, the keyboard buffer... Because of the extremely useful nature of the monitor, even copy-protected software can be interrupted, altered to suit tastes, studded with new fonts, captured, then saved to disk.

In the monitor, you should remember that it's expecting HEX, so it's *@#c* to access device #12. It makes sense, but it stumped me for a while. I thought it only worked with devices 8 and 9. The manual mistakenly says that it supports only devices 8-11.

Snapshot's monitor can look at C-64 memory, drive memory, REU memory or drive sectors loaded into a specific area of memory.

Since the monitor is running invisibly in your C-64 it surreptitiously shows you the memory that it replaced stashed in its 8K cartridge RAM, not the C-64. My Cartridge has 32K of RAM. When swapping C-64 memory with cartridge memory, you notice a screen sparkle.

There is a bug in the monitor's BSAVE command. Unless you specify slow save, the monitor might crash, at least with a 1541/71.

The cartridge comes with a *Sprite Monitor* that's neat for inspecting or saving sprites that you like. As soon as you freeze a program, you can inspect the current sprites. The monitor is already looking at the correct location in memory when you go to it. You can load/SAVE one sprite but not a group of them. A basic *Sprite Editor* is supplied on the system disk.

BASIC Plus — is a fine BASIC wedge. Type *@pound sign* to activate it. The RENUMBER command will do GOTOs, GOSUBs and ONs.

An exciting feature of BASIC PLUS is the MERGE command. It allows you to merge a routine into your BASIC program. This is MUCH more versatile than an APPEND command. With MERGE, you don't *have* to have added line numbers larger than the present line numbers.

File Reader — Snapshot can read a text file with the convention *!filename* but remember that this is a text file, not a program file. You might like it better than JiffyDOS' *@t* command because Super Snapshot stops as soon as you hit the STOP key. JiffyDOS reads and then displays an entire block before checking for the STOP key.

To any programmers out there I say *buy this cartridge*. It'll come in handy. If you have a hard disk or 1581 and wish that you could use old favorite commercially-protected programs with your new, expensive media, *buy this cartridge* and make good use of your other drives.

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Jeff Takes Flak Over Defending Microsoft

By Jeff Jones. I had an interesting exchange of electronic letters with a LOADSTAR Letter reader who also works on a PC. Believe me, I know that there are people out there who are as suspicious of Microsoft as Rush Limbaugh is of President Clinton. If

anything bad happens to Bill Gates or Microsoft, it's good. Government action here is dangerous though because here we have the government telling a private company that it can't put its own program on its own disk and sell it because of a supposed monopoly. Since I work for a software company, this bothers me. Even the original consent decree bothers me.

In Shawn's defense, I had the opportunity to embellish my statements and say what I really wanted to say after thinking about it. In the spirit of fairness, I can't re-word Shawn at all except that I will run his words through the same spell checker as mine.

Shawn is the veteran here — in more ways than one. I won't dare claim to know more than he does on this topic. I will stick to my guns though, as you'll see. I had to decrease the font size of this discussion in order to keep it in this newsletter.

Shawn: While I never thought there would be an occasion where I disagree with you, your recent defense of Microsoft (LS Letter #51, page 2) has left me a little bit miffed. You point out that Microsoft wrote the Operating System for our C-64. This is true. But "...efficient fast operating system..."? When was the last time you had occasion to use "wait 6502, x" in a program?

Jeff: Since it's nearly impossible for wait6502.x to ever be applicable in any application, no I haven't. The BASIC Wait waits for a memory location to change. Wait 6502.x is useless because location 6502 doesn't normally change. Perhaps if you had interrupt driven software that changes location 6502 you could wait there, but under normal circumstances simply waiting 6502.x would hang — bug or not.

I vaguely remember reading about the wait 6502.x bug in comp.sys.cbm. I never cared what it was because I literally can't think of a reason to wait there. I have used wait 198 and wait 53265 before. No big deal.

When I say fast and efficient, I mean that even though I prefer the C-64 at 20 MHz, the C-64 gets by at 1 MHz. This is due in part to an efficient operating system. As Rick Nash once said about some of the code: It was *ingenious*.

Shawn: BTW, Commodore worked on BASIC 7.0 in-house. Microsoft insisted on the copyright notice because of their original work on 2.0 for the 64.

Jeff: That's worth noting if true. But don't use the BASIC 7.0 as an example of why Commodore may have done better work than Microsoft.

Shawn: I'm curious. Why?

Jeff: I'm a 64 lover. Simply giving a 64 more columns and twice the memory doesn't make it better. I salivated for a C-128 until I began using one and it seemed slower than a C-64. It's sluggish. I like the zippy feel of the C-64 better. The similar Atari XLs had more voices and seemingly better features than the C-64. It didn't make it a better computer either. Scores of Commodore IBM, MAC and other computers have come and gone since the C-64. There's a reason why the 128 and 8-bit Ataris died first and why there's more 64 support in general than 128 support.

Shawn: The Department Of Justice is not fining Microsoft a million dollars a day on the word of Microsoft's competitors. Compaq computer (hardware, not software) is the chief complainant in

The Internet for Commodore C64/128 Users 2nd Edition

by Gaelyne R. Gasson

ISBN: 06-646-32207-9

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the current case. Microsoft would NOT license Windows 95 to a PC manufacturer unless they also licensed Microsoft Internet Explorer. PC manufacturers are not Microsoft's competitors. This was akin to forcing the PC manufacturers to distribute Microsoft's product for them. The only reason that Microsoft could do this was because they have a monopoly on the Operating System for IBM compatible PCs (when was the last time you heard of someone installing LINUX on their PC? And that is just about the only viable Operating System alternative around!)

Jeff: People are preferring Windows and not buying other stuff to a very large degree. That is Microsoft's fault for marketing Windows and making everybody think they need it to live. It's not a million-dollar-a-day crime.

Shawn: I find it very interesting that it is not necessary for a PC manufacturer to license Microsoft Internet Explorer in order to license Windows NT 4.0, perhaps because NT is competing against high end UNIX machines?

Jeff: Maybe because it's not on the disk. Maybe they couldn't get it to work with NT in time for NT's release. They have had a ton of trouble with Explorer.

Shawn: And let's not forget one other thing— Internet Explorer is NOT free.

Jeff: I have it. Never paid a dime for it.

Shawn: Who pays the programmers that code it? Who pays for the equipment they use? You do. Every time you buy Microsoft Office at \$349 a pop, the Windows 95 upgrade at \$89 or NT 4.0 for \$129, you are paying for Microsoft Internet Explorer. Don't you think that just irks the folks at Netscape, who are paying for Microsoft Internet Explorer each time they buy the latest iteration of Microsoft's Operating System so they can test their program? Each time you download the latest Microsoft Internet Explorer upgrade or security fix or plug-in, remember to thank everyone that has given you this "Free" program.

Jeff: Wait a minute. Using that argument then nothing is free — even pamphlets in the Doctor's office. A man hands you his business card and the card is not free if you do business with him? Naturally his previous customers did pay for the card since he had to buy it from some sort of profit. Microsoft spends a few cents on each CD they give away, and they even sell it in Wal-Mart for people dumb enough to buy something they can download for free. Or if you don't feel like downloading, just get on Microsoft's mailing list and one will arrive at your door no charge. Buy one of their other products and it's bundled on the CD. They want you to use it and they want you to join the Microsoft

Network with it (their version of AOL). They want a zillion people sending them \$19.95 per month and seeing their sites full of their ads.

Microsoft software has not jumped inordinately in price either. Because Explorer is absolutely free, Softdisk gives it away to new Internet customers. What does Microsoft get out of it? The first time the user installs it, they go straight to Microsoft's ads and propaganda. Sounds like good business for Microsoft and Softdisk. It gets the people online right away without hoping they lose interest before they find some other way online.

Shawn: I thought that when the Japanese gave products away for free, we called that "Dumping", trying to put your competitors out of business so that you could later dominate the market. All sounds so very un-American to me.

Jeff: When Burger King gave away fries for free in late 1997, it was a direct attempt to dethrone the king of fries, McDonald's. Why didn't Janet Reno fine Burger King \$1 million per day? Everyone plays the game of freebies and sensible utilities that are useful but not salable.

Shawn: Microsoft could not dethrone Netscape by dumping their browser, so now they will force every computer user to get the product REGARDLESS OF WHETHER THEY WANT IT OR NOT.

Jeff: Microsoft's goal wasn't to dethrone Netscape the browser, but partly to promote their expensive server software because naturally their browser is more compatible. Also a person who uses Explorer is more likely to jump to Microsoft's site and see their propaganda. Maybe download a free trial and then buy it.

If I were Microsoft, I would NEVER back down. If Compaq or anyone else wants to sell their computers bundled with MY software preloaded, they damn well better install my software as-is or use some other operating system. They could of course simply throw in the Windows 95 CD uninstalled and install an MS-DOS version of their browser. Of course the MS in MS-DOS still stands for Microsoft. If they want to additionally install Netscape or their own software, nothing is stopping them.

Shawn: And finally, something you said in the third sentence of your article still smarts. You said, "Whenever the government deals with computers, they show their ignorance." Well Jeff, I am a Staff Sergeant in the United States Air Force. I maintain a computer network for the Executive Support Center, Office of the Secretary of Defense. We use Windows NT 4.0 on over sixty machines here, twenty-four hours a day, 365 days a year. I don't

make 60,000 dollars a year. I'm subject to extensive duties to places overseas. I don't get overtime and constantly am reading to keep myself current with all of the latest in computer networking. I could go on and on, but I am so used to seeing people make thoughtless statements like this that I have learned to ignore most of them. But coming from a fellow Commodore user, that stings. Please consider your words more carefully before you make such a blanket statement.

Jeff: Wait! Wait! Wait! You missed the preceding articles, dating back years! That statement about the government goes with an article I wrote about Congress and the Senate grandstanding and writing stupid laws "to protect the children." They write laws that say if a Sysop screens *any* mail he is responsible for *any* illegal activity on the entire BBS, even if it's a commercial BBS with *thousands* of calls per week.

I believe the subject of that article was that Janet Reno wasn't qualified to make the decision, not you, and not other government employees who are actual computer experts. One of my closest friends is a computer expert for the Department Of Defense and he laughs at the policies and waste.

Having Janet Reno declare that a computer operating system out of the box *must not* be able to hook up to the Internet without an additional charge simply makes me say *why?*

No telecommunication capability allowed in an operating system? This is what it boils down to. Microsoft can make Windows 98 or Windows 2000 as powerful as they like, but they darned well better not make surfing the net integral to the operating system. Nope! By law the customer must either download it or pay for it as an extra. That's stupid. If Microsoft wants to make Windows 98 print 1000 times on your screen, "Bill Gates is really kewl!" then so be it. If people don't like it, they can buy Linux MACs or OS2 Warp. If Bill Gates buys Intel and then Makes Windows 2000 incompatible with AMD chips, nasty move — but smart move. It makes AMD chips decrease in value and Pentium chips rise in value. Makes AMD owners who want Windows 2000 angry, but it shouldn't be illegal.

Outlawing it makes just about as much sense as the Government, who knows where I live, and how many kids I have, and my marital status, spending *millions* on the census and threatening me with jail if I don't fill out *by hand* data that they already have on me.

They'll buy a 4 billion-dollar computer for the IRS that doesn't work. But they won't spend \$100,000 to \$1,000,000 to develop processing software for an automatic census because at least right now software companies aren't big contributors. Even if they paid \$20,000,000 to write the software, it wouldn't cost as much as the *paper* and postage they'll spend on the census.

Those same idiots make it illegal to carry a laptop into the Senate. Senators who want to take

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and use notes or write down an appointment in a pocket minute minder, *can't* by law. *That's* the government idiocy I mentioned.

Shawn: The privacy act of 1974 actually prevents government agencies from sharing data that they have collected, except for the uses you allowed it for. Thus, the IRS cannot give their data to the Census Bureau. But they are working towards this (witness electronic filing). It will take a while (are your parents ready for electronic census forms? Mine aren't) but eventually what you envision will come to pass. It takes a lot of time to change the course of a river.

Jeff: The privacy act point would make more sense if I had a choice not to respond to the census. The census form says I must fill it out. It would also make more sense if agencies like the IRS, DMV, and even private organizations like insurance companies **couldn't** send out data for processing with personal fields like name and street address blank. An electronic census could be done every year automatically, and of course the constitutional census every ten years would be included.

As for my cyberphobic mother filling out her electronic census, why should she? They already know she's living in my sister's house, how old she is, her maiden name, etc. They mail her pension and social security check every month. To send her a fully addressed form saying, "Who are you, how many dependants do you have and how much money do you make..." in any form is superfluous, redundant, needless (yes, I realize this passage is redundant), and a waste of tax dollars. The government doesn't know how to use its computers and will stick its head in the sand quickly before even considering saving tax dollars when it can please a campaign contributor or two with big government every ten years.

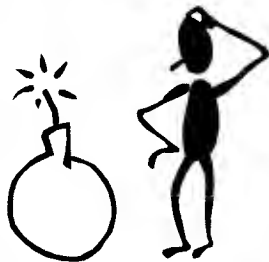
Amazing But True Spam Story

By Jeff Jones. Last week a stupid spammer sent me (and thousands of others) a piece of Email. The problem was

this guy's short message wasn't sent *blind*, where you can't see a list of all of the other people receiving the Email. In essence, he sent his huge Email list with his Email.

This resulted in me receiving a 1.8-megabyte Email with an incredible header so large that it crashed my mail software three times, eating up over a half-hour of my life. Then, to add insult to injury, many of the

thousands who received this monstrous Email hit the *reply all* button and told the spammer to stop mailing them. It caused a cascade of Emails, then a cascade of people saying to stop replying to *all*. Total heck. I had to screen my mail before downloading it until this subsided, which was a pain.



The Male Rules

Rule # 1 - Anything we said six or eight months ago is inadmissible in an argument. All comments become null and void after seven days.

Rule # 2 - If you don't want to dress like Victoria's Secret girls, don't expect us to act like soap opera guys.

Rule # 3 - If we say something that can be interpreted in two ways, and one of the ways makes you angry, we meant the other way.

Rule # 4 - It is in neither your best interest nor ours to make us take those stupid Cosmo quizzes together.

Rule # 5 - Let us ogle. If we don't look at other women how can we know how pretty you are?

Rule # 6 - Don't rub the lamp if you don't want the genie to come out.

Rule # 7 - You can either ask us to do something *or* tell us how you want it done - *not both*.

Rule # 8 - Whenever possible, please say whatever you have to say during commercials.

Rule # 9 - Christopher Columbus didn't need directions and neither do we.

Rule # 10 - Women who wear Wonder bras and low-cut blouses lose their right to complain about men staring.

Rule # 11 - When we're turning the wheel and the car is nosing onto the off ramp, you saying "This is our exit" is not necessary.

Rule # 12 - Don't fake it. We'd rather be ineffective than deceived.

Next issue will contain the female rules.

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